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Notice of Allowability	Application No.	Applicant(s)	
	09/883,213	BATTLE ET AL.	
	Examiner	Art Unit	
	Anh-Vu H. Ly	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after final amendment filed June 12, 2006.
2. ☒ The allowed claim(s) is/are 1-3 and 5-18 renumbered as 1-17 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with N. Alexander Nolte on June 27, 2006.

The application has been amended as follows:

In The Claims

1. (Currently Amended) A memory management unit for a network switch fabric for forwarding data comprising:

- an ingress port interface receiving portions of a data packet;
- an egress port interface, connected to ingress ports of the fabric through an ingress bus ring;
- a cell packet, where the cell packet groups packet data into cells;
- a packet pool memory, where the packet pool memory stores cells received from the cell packet; ~~and~~
- a cell unpacker, where the cell unpacker separates stored cells before releasing the cells to an egress port; and

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wherein each port of the switch fabric has a memory for storing packet data and each port memory is configured such that the port memory for non-active ports buffers packet data for active ports upon request of the active ports.

2. (Currently Amended) A memory management unit as recited in claim 1, further comprising a plurality of egress port interfaces and wherein said ingress bus ring is configured such that outputs of one of the plurality of ~~egress~~ ingress port interfaces are physically connected to inputs of an adjacent one of the plurality of egress port interfaces.

4. (Canceled).

7. (Currently Amended) A memory management unit as recited in claim 5, wherein the ~~predetermined~~ determined priority rules comprise a deficit round robin scheduling algorithm.

8. (Currently Amended) A memory management unit as recited in claim 5, wherein the ~~predetermined~~ determined priority rules comprise a weighted round robin scheduling algorithm.

10. (Currently Amended) A method as recited in claim 6, transaction queues are configured to determine if a class of service ~~class~~ in the transaction queues has reached a limit and purge the data packet when ~~the transaction queue~~ one of the series of transaction queues has reached the limit.

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18. (Currently Amended) A network switch fabric as recited in claim 17, further comprising a central processing unit connected to the fabric and communicating with the to ingress and egress port stations through the message ring.

Allowable Subject Matter

2. Claims 1-3 and 5-18 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest that each port memory is configured such that port memory for non-active ports buffers data packet for active ports upon request of the active ports in a network switch fabric, as specified in independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Battle et al (US Pub 2002/0136211 A1) discloses switch fabric with memory management unit for improved flow control.

Kalkunte et al (US Pub 2003/0198231 A1) discloses frame forwarding in a switch fabric.

Agarwala et al (US Pub 2002/0078269 A1) discloses active ports in a transfer controller with hub and ports.

Walker et al (US Patent No. 6,260,073 B1) discloses network switch including a switch manager for periodically polling the network ports to determine their status and controlling the flow of data between ports.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

avl


CHI PHAM
SUPERVISORY PATENT EXAMINER 6/28/02